

We claim:

1. A valve comprising:

5 a valve body comprised of a non-conformable material, said valve body having a bore extending therethrough, from the inlet port to the outlet port;

an upper inwardly extending flange, said flange characterized by a bottom surface, a top surface, and a bore extending from the bottom surface to the top surface, said bottom surface serving as a valve seat;

10 a plunger extending through the bore, said plunger having an upper segment of small diameter making it capable of moving through the bore of the upper inwardly extending flange, said plunger having a lower segment of larger diameter such that said lower segment cannot pass through
15 the bore of the upper inwardly extending flange, said lower segment of the plunger having an upper surface positioned in apposition to the bottom surface of the upper inwardly extending flange and a lower surface.

20 2. The valve of claim 1 further comprising a ring comprising a conformable material disposed between the plunger lower segment and the upper inwardly extending flange.

3. The valve of claim 1 further comprising a housing covering the deflation valve.

25 4. The valve of claim 3 wherein the housing comprises a resilient housing.

5. The valve of claim 1 wherein the small diameter of the upper segment of the plunger is about equal to the diameter of the bore.

6. The valve of claim 1 further comprising a spring positioned
5 below the plunger lower segment, said spring biasing the plunger upwardly.

7. The valve of claim 1 further comprising a disk disposed on the plunger, said disk having an upper surface and a lower surface, wherein the upper surface of the disk corresponds to
10 the upper surface of the lower segment.

8. The valve of claim 7 wherein the lower segment further comprises a lower extension attached to the disk, said lower extension having a diameter smaller than the disk.

9. The valve of claim 8 further comprising a spring positioned
15 below the lower surface of the disk, said spring biasing the plunger upwardly.

10. The valve of claim 9 wherein the spring is disposed around the lower extension.

11. The valve of claim 1 wherein the lower segment has a
20 frustoconical shape.

12. The valve of claim 11 further comprising a spring positioned below the plunger lower segment, said spring biasing the plunger upwardly.

13. The valve of claim 1 further comprising:

25 a ring comprising a conformable material disposed between the plunger lower segment and the upper inwardly extending flange;

a housing covering the deflation valve;

a disk disposed on the plunger, said disk having an upper surface and a lower surface, wherein the upper surface of the disk corresponds to the upper surface of the lower segment, wherein the lower segment further comprises a lower extension attached to the disk, said lower extension having a diameter smaller than the disk;

a spring positioned below the lower surface of the disk, said spring biasing the plunger upwardly, wherein the spring is disposed around the lower extension;

wherein the small diameter of the upper segment of the plunger is about equal to the diameter of the bore.

14. A valve comprising:

a valve body comprised of a non-conformable material, said valve body having a bore extending therethrough, from the inlet port to the outlet port; an inwardly extending flange, said flange characterized by a bottom surface, a top surface, and a bore extending from the bottom surface to the top surface, said bottom surface serving as a valve seat;

a plunger extending through the bore, said plunger having an upper segment of small diameter making it capable of moving through the bore of the upper inwardly extending flange, said upper segment having an annular groove thereon, said plunger having a lower segment of larger diameter such that said lower segment cannot pass through the bore of the upper inwardly extending flange, said lower segment of the plunger having an upper surface

positioned in apposition to the bottom surface of the upper inwardly extending flange and a lower surface.

15. The valve of claim 14 further comprising a ring comprising a conformable material disposed between the plunger lower segment and the upper inwardly extending flange, said ring having an inner diameter slightly smaller than the diameter of the upper segment.
16. The valve of claim 15 wherein the ring is disposed partially within the groove of the upper segment.
17. The valve of claim 14 further comprising a housing covering the deflation valve.
18. The valve of claim 17 wherein the housing comprises a resilient housing.
19. The valve of claim 14 wherein the small diameter of the upper segment of the plunger is about equal to the diameter of the bore.
20. The valve of claim 14 further comprising a spring positioned below the plunger lower segment, said spring biasing the plunger upwardly.
21. The valve of claim 14 further comprising a disk disposed on the plunger, said disk having an upper surface and a lower surface, wherein the upper surface of the disk corresponds to the upper surface of the lower segment.
22. The valve of claim 21 wherein the lower segment further comprises a lower extension attached to the disk, said lower extension having a diameter smaller than the disk.

23. The valve of claim 22 further comprising a spring positioned below the lower surface of the disk, said spring biasing the plunger upwardly.

24. The valve of claim 23 wherein the spring is disposed around
5 the lower extension.

25. The valve of claim 14 wherein the lower segment has a frustoconical shape.

26. The valve of claim 25 further comprising a spring positioned below the plunger lower segment, said spring biasing
10 the plunger upwardly.

27. The valve of claim 14 further comprising:

a ring comprising a conformable material disposed between the plunger lower segment and the upper inwardly extending flange, said ring having an inner diameter
15 slightly smaller than the diameter of the upper segment;

a housing covering the deflation valve;

a disk disposed on the plunger, said disk having an upper surface and a lower surface, wherein the upper surface of the disk corresponds to the upper surface of the lower segment, wherein the lower segment further comprises a
20 lower extension attached to the disk, said lower extension having a diameter smaller than the disk;

a spring positioned below the lower surface of the disk, said spring biasing the plunger upwardly, wherein the
25 spring is disposed around the lower extension;

wherein the small diameter of the upper segment of the plunger is about equal to the diameter of the bore.